

cct gga gaa tta gtc tta gat ttt gcc gag ctt gca aga gat cca agt Pro Gly Glu Leu Val Ileu Asp Phe Ala Glu Leu Ala Arg Asp Pro Ser 15 20 25	619
tca act aga ctt gat ctt aca aat tat gtt gat tat gta tat tgg ggc Ser Thr Arg Leu Asp Leu Thr Asn Tyr Val Asp Tyr Val Tyr Ser Gly 30 35 40	667
get tct ggt att gtt aag ccc gaa gat atg gtt gta gat ctt ggg ata Ala Ser Gly Ile Val Lys Pro Glu Asp Met Val Val Asp Leu Gly Ile 45 50 55	715
aat aat tgg agc gtt tta ctt act cct tct gca agg ttg sag gtc tac Asn Asn Trp Ser Val Leu Leu Thr Pro Ser Ala Arg Leu Glu Ala Tyr 60 65 70 75	763
gtt aaa aat tca gtt gtc gcc gct gtt gtt aag agt gag tca aaa Val Lys Asn Ser Val Val Ala Pro Ala Val Val Lys Ser Glu Ser Lys 80 85 90	811
agg tac gca ggt gat act att ttg ggg gta aga gtt ttg ttt cca agc Arg Tyr Ala Gly Asp Thr Ile Leu Gly Val Arg Val Leu Phe Pro Ser 95 100 105	859
tat tct caa tca tct gct atg att atg cca cca ttt aaa att cct ttt Tyr Ser Gin Ser Ser Ala Met Ile Met Pro Pro Phe Lys Ile Pro Phe 110 115 120	907
tat tca ggg gaa agt ggc aat caa ttt tta ggc aaa ggt ctt att gat Tyr Ser Gly Glu Ser Gly Asn Gln Phe Leu Gly Lys Gly Leu Ile Asp 125 130 135	955
aac att aaa acc atg aaa gaa att aag gta tct gtt tat agt tta ggg Asn Ile Lys Thr Met Lys Glu Ile Lys Val Ser Val Tyr Ser Leu Gly 140 145 150 155	1003
tat gag ata gat ctt gag gtt tta ttt gaa gat atg aat ggc atg gaa Tyr Glu Ile Asp Leu Glu Val Leu Phe Glu Asp Met Asn Gly Met Glu 160 165 170	1051
tat gct tat tct atg ggt act tta aag ttt aaa ggg tgg gct gat tta Tyr Ala Tyr Ser Met Ile Thr Leu Lys Ile Lys Glu Tyr Ala Arg Leu 175 180 185	1099
aaa gac gat gtt cca aat tat cct ctt gct tca agt aaa atg aca ttt Lys Asp Asp Val Pro Asn Tyr Pro Leu Ala Ser Ser Lys Met Arg Phe 200 210 215	1135
ttt ttt Ile Ala Ile Ala Ile 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300	1145

Sequence 1: 1000-1145
Sequence 2: 1000-1135
Sequence 3: 1000-1099
Sequence 4: 1000-955
Sequence 5: 1000-859
Sequence 6: 1000-763
Sequence 7: 1000-667
Sequence 8: 1000-619

255	260	265	
act aac gga act gaa tcc ctt agt aaa tta aag gca cac gaa act ttt Thr Ser Gly Thr Glu Ser Leu Arg Lys Leu Lys Ala His Glu Thr Phe 270 275 280			1387
aaa aca gta tta aag ctt aca gaa aaa aat tct aac gct gaa ggc tct Lys Arg Val Leu Lys Leu Arg Glu Lys Ile Ser Ile Ala Glu Gly Ser 285 290 295			1435
ttc caa aac ttt gta gaa aag aat gag aca gaa aaa cct gaa gaa tca Phe Gln Asn Phe Val Glu Lys Ile Glu Ser Glu Lys Pro Glu Glu Ser 300 305 310 315			1483
tct ccc aaa aat tag gtttaaatta atatgtaaag ctacctaaaa ggtttgcttt Ser Pro Lys Asn *320			1538
acatattaaa ataataggaa atagtatatg gaaatattag atttggaaaa tgaagagctt			1598
tttagagttt tttttgaaga agctcaaaat cttgtagata tccttgaaga gaatatt			1655
<p><210: 2</p> <p><211: 341</p> <p><212: PRT</p> <p><213: B.burgdorferi</p>			
<p><400: 2</p> <p>Met Lys Arg Lys Ala Lys Ser Ile Leu Phe Phe Leu Leu Ser Thr Val -22 -20 -15 -10</p> <p>Leu Phe Ala Gln Glu Thr Asp Gly Leu Ala Glu Gly Ser Lys Arg Ala 5 1 5 10</p> <p>Glu Pro Gly Glu Leu Val Leu Asp Phe Ala Glu Leu Ala Arg Asp Pro 15 20 25</p> <p>Ser Ser Thr Arg Leu Asp Leu Thr Asn Tyr Val Asp Tyr Val Tyr Ser 30 35 40</p> <p>Tyr Ala Ser Ile Ile Val Lys Pro Thr Asp Met Val Val Asp Leu Ile 45</p> <p>Ile Asn Asn Thr Ser Val Ser Thr Thr Ile Val Ala Asp Leu Ile Ala 50</p> <p>Tyr Val Lys Asn Ser Val Val Ala Ile Ala Val Val Lys Ser Thr Ser 55 60 65 70</p> <p>Lys Asn Tyr Ala Gly Asp Thr Ile Leu Gly Val Arg Val Leu Phe Pro 75 80 85 90</p> <p>Ser Thr Ser Ile Ser Ser Ala Met Ile Met Ile Ile Ile Ile Ile Ile Ile</p>			

155 160 165 170
Glu Tyr Ala Tyr Ser Met Gly Thr Leu Lys Phe Lys Gly Trp Ala Asp
175 180 185
Leu Ile Trp Ser Asn Pro Asn Tyr Ile Pro Asn Ile Ser Ser Arg Ile
190 195 200
Ile Lys Asp Asp Val Pro Asn Tyr Pro Leu Ala Ser Ser Lys Met Arg
205 210 215
Phe Lys Ala Phe Arg Val Ser Lys Ser His Ser Ser Lys Val Lys Asn
220 225 230
Phe Ile Phe Tyr Val Lys Asp Leu Arg Val Leu Tyr Asp Lys Leu Ser
235 240 245 250
Val Ser Ile Asp Ser Asp Ile Asp Ser Glu Ser Val Phe Lys Val Tyr
255 260 265
Glu Thr Ser Gly Thr Glu Ser Leu Arg Lys Leu Lys Ala His Glu Thr
270 275 280
Phe Lys Arg Val Leu Lys Leu Arg Glu Lys Ile Ser Ile Ala Glu Gly
285 290 295
Ser Phe Gln Asn Phe Val Glu Lys Ile Glu Ser Glu Lys Pro Glu Glu
300 305 310
Ser Ser Pro Lys Asn
315

<210> 3
<211> 21
<212> DNA
<213> B.burgdorferi

<400> 3
atgaaaaggaaaggctaaaag t 21

<210> 4
<211> 19
<212> DNA
<213> B.burgdorferi

<400> 4
atgaaaaggaaaggctaaaag t 19

<210> 5
<211> 21
<212> DNA
<213> B.burgdorferi

<213> B.burgdorferi

<400> 6

ctaattttc ggagatgatt c

21